

AMENDMENT UNDER 37 CFR § 1.116
Serial No. 09/552,593

REMARKS

A total of 52 claims remain in the present application. The foregoing amendments are presented in response to the Office Action mailed February 16, 2005, wherefore reconsideration of this application is requested.

By way of the above-noted amendments, claims 1, 19, 39 and 52 have been amended to address the Examiner's objections under 35 U.S.C. § 112. Claims 2, 20 and 42 have been amended to reflect the revisions effected in claims 1, 19 and 39.

In preparing the above-noted amendments, careful attention was paid to ensure that no new subject matter has been introduced.

Referring now to the text of the Office Action:

- claims 1-52 stand objected to under 35 U.S.C. § 112 as failing to comply with the written description requirement;
- claims 1, 2, 4-9, 16-23, 25-30, 36-44 and 52 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over the teaching of United States Patent No. 5,257,261 (Parruck et al) in view of United States Patent No. 6,118,795 (Fukunaga et al.);
- claims 3 and 24 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over the teaching of United States Patent No. 5,257,261 (Parruck et al) in view of United States Patent No. 6,118,795 (Fukunaga et al.), and further in view of United States Patent No. 6,160,819 (Partridge et al.); and
- claims 10-15, 31-35 and 45-51 are objected to as being dependent on a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, and further to overcome the rejections under 35 U.S.C. § 112.

AMENDMENT UNDER 37 CFR § 1.116
Serial No. 09/552,593

As an initial matter, applicant appreciates the Examiner's indication of allowable subject matter in claims 10-15, 31-35 and 45-51. The Examiners claim rejections under 35 U.S.C. §112 and 103(a) are believed to be traversed by the above-noted claim amendments, and further in view of the following discussion.

Rejections under 35 U.S.C. § 112

The Examiner's claim rejections under 35 U.S.C. § 112 are believed to be fully addressed by way of the deletion of the offending language from the claims. Since the term "hyper-concatenated", and the user-variable traffic mix being carried by the first and second data streams are not essential for defining over the prior art, limitations thereto have been removed from the claims.

Rejections under 35 U.S.C. § 103(a)

At paragraph 10 of the Detailed Action, the Examiner asserts that United States Patent No. 5,257, 261 (Parruck et al) teaches "a framer (e.g. via demultiplexer 40 in FIG. 2) adapted to detect incoming frames and generate a local strobe signal (e.g. comprising J1 byte) indicative of a timing of incoming frames... an interface for receiving a master strobe signal (e.g. comprising control signal and B3 parity value) from a selected adjacent channel processor; and an output timer (e.g. see retiming block 18 in FIG. 1d) adapted to control a position of a read pointer for outgoing bits of the respective first data stream based on a selected one of the local and master strobe signals." With respect, Applicant submits that the Examiner's interpretation is unsupported by the teaching of Parruck et al, and that rejections based on such a misinterpretation cannot be sustained as a matter of law.

In particular, the Examiner equates the claimed master strobe signal received from a selected adjacent channel processor with the control signal and B3 parity value of Parruck et al.. However, at column 4, lines 56-66, Parruck et al explicitly state that:

"... the lowest terminating apparatus (e.g., 10-4) calculates and transmits its B3 parity calculation to its adjacent terminating apparatus (e.g., 10-3). By the next byte time, the chip receiving the lowest level B3 parity calculation, conducts its own B3 parity calculation as described above, and at the next

AMENDMENT UNDER 37 CFR § 1.116
Serial No. 09/552,593

byte time transmits its B3 parity calculation to the adjacent higher terminating apparatus. This process continues until the master receives the B3 parity calculation from its adjacent slave apparatus in time to calculate the B3 parity value for the STS-NC signal for use."

Thus, Parruck et al explicitly teach that the terminating/handling apparatus 10 are connected together in a cascade, and that the direction of propagation of the B3 parity value is always in the same direction; that is, from the lowest slave apparatus (10-4) toward the master (10-1). As such, Parruck et al explicitly state that each terminating/handling apparatus 10 receives the B3 parity calculation from exactly one adjacent apparatus, which is dictated by its order in the chain of slave apparatus. Parruck et al. do not teach or suggest that this order can be changed, and do not teach or suggest any means by which the direction from which the B3 parity calculation is received (by any given apparatus 10) can be selected. Thus, the person of ordinary skill in the art will recognise that Parruck et al do not teach or suggest any equivalent to the claimed "interface adapted to receive a master strobe signal from a selected adjacent channel processor".

Further, the Examiner asserts that Parruck et al teach an output timer adapted to control a position of a read pointer for outgoing bits of the respective first data stream based on a selected one of the local and master strobe signals. In this case, the Examiner refers to block 18 of FIG. 1d (the contents of which is illustrated in FIG. 2.) as the output timer; the local strobe signal is attributed to the J1 pulse generated by the demultiplexer 40 of FIG. 2; and the master strobe is attributed to the B3 parity value and control signal received from the adjacent apparatus 10. However, Parruck et al explicitly teach that read pointer movements (increment or decrement) are controlled by the decision block 52, based on depth measurement (i.e. a FIFO fill) and frame count, as is clearly shown in FIG. 2 (see blocks 48, 50 and 52), the flow chart of FIG. 3, and the accompanying description at col. 9, lines 24-49.

In summary, Parruck et al clearly fail to teach or suggest anything equivalent to the claimed features of "an interface adapted to receive a master strobe signal from a selected adjacent channel processor; and an output timer adapted to control a position of a read pointer for reading the buffered first data stream based on a selected one of the local and master strobe

AMENDMENT UNDER 37 CFR § 1.116

Serial No. 09/552,593

signals" as required by claims 1, 19 and 39. United States Patent No. 6,118,795 (Fukunaga et al.) fails to supply the missing teaching.

In particular, Fukunaga et al. teach a system for receiving and pointer processing signals in an SDH transmission system. According to Fukunaga et al., the system is capable of detecting a concatenation of received signals, and using this information to enable appropriate pointer processing of the signal. However, Fukunaga et al. is entirely silent with respect to signals on multiple parallel channels, and does not attempt to align signals within adjacent parallel channels. More specifically, Fukunaga et al. does not teach or suggest "an interface adapted to receive a master strobe signal from a selected adjacent channel processor; and an output timer adapted to control a position of a read pointer for reading the buffered first data stream based on a selected one of the local and master strobe signals" as required by claims 1, 19 and 39.

With reference to claim 52, applicant notes that the Examiner has not attempted to apply the teachings or either reference to the claimed feature of "aligning each of the data streams at a downstream end of each hop toward the destination node". Furthermore, applicant is not aware of any teaching of the known prior art that reads onto this feature. As such, Application respectfully submits that this feature presents further grounds of patentability of claim 52.

In light of the foregoing, it is respectfully submitted that the presently claimed invention is clearly distinguishable over the teachings of the cited references, taken alone or in any combination. Thus it is believed that the present application is in condition for allowance, and early action in that respect is courteously solicited.

AMENDMENT UNDER 37 CFR § 1.116
Serial No. 09/552,593

If any extension of time under 37 C.F.R. § 1.136 is required to obtain entry of this response, such extension is hereby respectfully requested. If there are any fees due under 37 C.F.R. §§ 1.16 or 1.17 which are not enclosed herewith, including any fees required for an extension of time under 37 C.F.R. § 1.136, please charge such fees to our Deposit Account No. 19-5113.

Respectfully submitted,



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